

Division of Physiology
Experimental Biology and
Medicine Institute

October 6, 1948

Professor G. F. Gori
Washington University
School of Medicine
St. Louis, Missouri

Dear Dr. Gori:

I've wanted to write for some time to thank you for spending more time on the EPN Pyrophosphatase manuscript. It was accepted and will appear in the November issue.

During the past two months I have been working with a system which has me rather excited. Starting with a lebedeviaft from ale yeast, it was possible to purify an enzyme which mediates the reaction: Nicotinamide Mononucleotide + ATP \rightleftharpoons EPN + Inorganic pyrophosphate. The reaction is readily reversible with the equilibrium slightly to the left. In the purified system, ATP and nicotinamide nucleoside are inactive. Inorganic pyro was estimated as a manganese salt. No orthophosphate appears and there is no change in acid-labile phosphate.

It would seem from these results that inorganic pyro is a more "physiologic" substance than we thought, and I am anxious to have your advice for future work. I wonder whether to return immediately to kidney granules or whether to try to ascertain the presence of an analogous coupling of flavin nucleotides with phosphorylation in yeast.

Severo Ochoa was here two weeks ago and advised me to send off a note about this work and now I'm inclined to agree. I would like to further purify the enzyme which is something of an engineering problem and to obtain a better equilibrium constant which may be complicated by complex formation of Mg with pyrophosphate. Would you mind reading the note when it is ready? I will appreciate it immensely.

Our fond regards to you and Mrs. Gori, and please tell her we're expecting a baby girl next month.

Sincerely,

P.S. Karamowski dropped in this morning and it was so pleasant to hear that Mrs. Gori was back and looked so well. He told about the happy year he had in St. Louis and it made me feel lonesome for it.

(Arthur Kornberg)